Ecological Framework for the Restoration of the Salton Sea

by Jim Kelley

The Salton Sea

- Is an ephemeral feature of the environment.
- It is Not an Old Growth Forest or a Coral Reef
- In Pliocene time (8 million years ago), the Gulf of California flooded the Salton Trough
- The Colorado River, over time, deposited sediment which cut off the Salton Sea
- The Salton Sea was flooded several times only to dry up again during the last million years



Periodically,
The Salton Sea
Trough Has
Flooded,
Most
Recently
in 1905

The Salton Sea

- Prior to Damming the Colorado River, the Delta was a Rich and Varied Ecosystem, Attractive to a Large Variety of Fish and Wildfowl
- Today the Delta is Severely Compromised, but the Cienega de Santa Clara has Replaced some of the Delta's Traditional Function: It is the Area's "Field of Dreams"
- The Cienega de Santa Clara is an Accident of History and Could Easily Disappear
- We have an Opportunity Today to Permanently Replace these Ecological Functions with a Restored Salton Sea

The Salton Sea

- These Ecological Functions are:
 - A Biologically Productive Feeding and Resting Ground for Neotropical Migrant Birds
 - A Diverse Habitat Attractive to a Large Variety of Wildlife
 - 350 miles of Shoreline Littoral Environment Produced by the Cascade Concept, Compared with 80 Miles today
 - A Treatment Wetland for Introduced Environmental Contaminants
 - An Aesthetically Attractive Ecosystem Which Will Encourage Ecologically Responsible Recreation



The Salton Sea Trough

Today the
Trough is
Home to
Over 1
Million
People on
Both Sides
of the
Border

But the Delta is Now Cut Off



Colorado River Delta

Modern Colorado River Mouth

> Reverse Tidal Flow



Cienega de Santa Clara

Isla Montague



We have the Opportunity To Move the **Lost Delta Ecosystem** 100 miles North to the Salton Sea

If Anything is Clear to us Today, It is the Principle that Planning For the Best Environmental End Leads, in the Long Run, to the **Best Social and Economic Result And Makes Good Business Sense** Because Enhanced Environmental Quality Will have a Positive Impact on the Region as a Place to Live, Visit and Do Business. That, in turn, will Create a Healthier and More Diverse Economy for the Region for Decades into the Future

"Dawn on the Delta was whistled in by Gambel quail, which roosted in the mesquites overhanging camp. When the sun peeped over the Sierra Madres, it slanted across a hundred miles of lovely desolation, a vast bowl of wildemess rimmed by jagged peaks. On the map the Delta was bisected by the river, but the river was nowhere and everywhere, for he could not decide which of a hundred green lagoons offered the most pleasant and least speedy path to the Gulf. So he traveled them all, and so did we. He divided and rejoined, he twisted and turned, he meandered in awesome jungles, he all but ran in circles, he dallied with lovely groves, he got lost and was glad of it, and so were we....A verdant smell of mesquite and willow separated the channel from the thorny desert beyond. At each bend we saw egrets standing in the pools ahead each white statue matched by its white reflection. Fleets of cormorants drove their black prows in quest of skittering mullets; avocets, willets, and yellow-legs dozed one-legged on the bars; mallards, widgeons, and teal sprang skyward in alarm. As the birds took the air, they accumulated in a small cloud ahead, there to settle, or to break back to our rear. When a group of egrets settled on a far green willow, they looked like a premature snowstorm....What matters is that we were sharing our wilderness with the wildest of living fowl. We and they had found a common home in the remote vastness of space and time; we were both back in the Pleistocene." Aldo Leopold, Sand County Almanac, 1949.